

From: [Jon Rauscher](#)
To: [Betsaida Alcantara](#)
Cc: [R6 DWH REOC PSC@EPA](#); [R6 DWH REOC ESC@EPA](#); [R6 DWH EUL@EPA](#); [Paige Delgado](#); [Matthew Loesel](#); [Marc Greenberg](#); [Philip Turner](#); [Donald Williams](#); [Dipanjana Bhattacharya](#); [Valmichael Leos](#); [Sharon Osowski](#); [Nick Stone](#)
Subject: Definitions used in the BP oil spill
Date: 06/21/2010 05:09 PM

Definitions:

Crude, fresh or source oil - The oil coming the wellhead is fresh oil and is brown in color. Crude oil is a mixture of thousands of compounds including volatile organic chemicals (VOCs) and semi-volatile organic chemicals (SVOCs). alkanes, aromatics . Fresh crude oil contains aromatic VOCs such as benzene, toluene, ethylbenzene and xylene (BTEX).

Mississippi Canyon Block 252 (MS252) oil - MS252 oil is the oil released by the BP spill and is a South Louisiana sweet crude oil. The oil is referred to as sweet because it is low in sulfur. MS252 oil is relatively high in alkanes and relatively low in polycyclic aromatic hydrocarbons (PAHs). Alkanes are single-bonded carbons chains that microorganisms can readily use as food.

Weathered oil - Weathered oil is the crude oil that has lost its lighter compounds (lower molecular weight), including the VOCs, leaving heavier components (higher molecular weight) behind including the SVOCs. The lighter components are lost from the mixture by chemicals dissolving into the water and by volatilizing into the air. The weathering process occurs as the oil floats to the surface and the oil spreads out across the water.

Mousse - Mousse is a pudding-like emulsified oil or oil and water mixture, and is brown, rust or orange in color. Mousse is formed when seas are rough and winds are high.

HEM grease - HEM oil and grease is a method for the determination of h-hexane extractable material (HEM) in water. Extractable materials are the relatively nonvolatile organic chemicals. Crude oils can contain varying amounts of materials that are soluble and not soluble in n-hexane.

Reporting limits - Reporting limit is the lowest amount of an analyte in a sample that can be quantitatively determined that takes into account sample dilution, sample weight or volume, and the amount of moisture for sediment and soil. The reporting limit takes into account the day-to-day fluctuations in instrument sensitivity and analyst performance.

▼ [Betsaida Alcantara---06/17/2010 12:33:03 PM---](#) TOPICS:

From: Betsaida Alcantara/DC/USEPA/US
To: Jon Rauscher/R6/USEPA/US@EPA
Date: 06/17/2010 12:33 PM
Subject: Re: Hello

TOPICS:

results of EPA testing on the oil and whether that changes/informs/confirm the agency's assessment of risks to cleanup workers and others.

I've got the PDF with the data for "weathered oil." I wanted to know if someone could take me step by step through the chart. Give me a definition for "weathered oil," "HEM grease," "reporting limits." Also whether any of the substances exceeds the definition of what EPA considers safe for chronic exposure (since we are approaching the 60 day mark). For example, I saw arsenic detected at 39 mg/kg, which — if my information is correct — is 10 times the acceptable industrial standard.

▼ Betsaida Alcantara---06/17/2010 12:23:48 PM---Betsaida Alcantara Deputy Press Secretary | Office of Public Affairs

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